

## PATENT COOPERATION TREATY

## PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference JTSB-717-PCT	<b>FOR FURTHER ACTION</b> see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/JP2006/303523	International filing date (day/month/year) 21/02/2006	(Earliest) Priority Date (day/month/year) 13/06/2005
Applicant  KABUSHIKI KAISHA TOSHIBA		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 4 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

**1. Basis of the report**

a. With regard to the **language**, the international search was carried out on the basis of:

- ☒ the international application in the language in which it was filed  
☐ a translation of the international application into \_\_\_\_\_, which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b))

b. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (See Box No. II)

3. ☐ **Unity of invention is lacking** (see Box No. III)

4. With regard to the **title**,

- ☒ the text is approved as submitted by the applicant  
☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

- ☒ the text is approved as submitted by the applicant  
☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority

6. With regard to the **drawings**,

- a. the figure of the **drawings** to be published with the abstract is Figure No. 16  
☐ as suggested by the applicant  
☐ as selected by this Authority, because the applicant failed to suggest a figure  
☒ as selected by this Authority, because this figure better characterizes the invention
- b. ☐ none of the figures is to be published with the abstract

# INTERNATIONAL SEARCH REPORT

International application No

PCT/JP2006/303523

## A. CLASSIFICATION OF SUBJECT MATTER

INV. H01L33/00 H01S5/042 H01L21/285 H01L29/45

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

H01L H01S

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 1 450 414 A (NICHIA CORPORATION) 25 August 2004 (2004-08-25)  paragraphs [0017] - [0025]	1,4-9, 11-13, 15,17-19
X	WO 2004/047189 A (LG INNOTEK CO) 3 June 2004 (2004-06-03)  page 18, line 11 - page 22, line 24	1,4-9, 11-13, 15,17-19
X	US 6 586 328 B1 (ADESIDA I ET AL) 1 July 2003 (2003-07-01)  column 2, line 41 - column 3, line 59  -/--	1,4-9, 11-13, 15,17-19

☒ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

### \* Special categories of cited documents :

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

\*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

\*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

\*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

\*G\* document member of the same patent family

Date of the actual completion of the international search

11 July 2006

Date of mailing of the international search report

18/07/2006

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## INTERNATIONAL SEARCH REPORT

International application No

PCT/JP2006/303523

## C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P,X	WO 2006/014996 A (CREE INC) 9 February 2006 (2006-02-09)  page 10, line 12 - page 11, line 3 page 14, line 31 - page 15, line 18 -----	1,4-9, 11-13, 15,17-19

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/JP2006/303523

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 1450414	A	25-08-2004	CA 2458134 A1	19-08-2004
			CN 1523684 A	25-08-2004
			CN 2717023 Y	10-08-2005
			US 2006091417 A1	04-05-2006
			US 2004159836 A1	19-08-2004
WO 2004047189	A	03-06-2004	AU 2003280878 A1	15-06-2004
			EP 1561247 A1	10-08-2005
			JP 2006506827 T	23-02-2006
US 6586328	B1	01-07-2003	NONE	
WO 2006014996	A	09-02-2006	NONE	